CLAIM AMENDMENTS

Please cancel claims 37-38 without prejudice or disclaimer.

Please amend claims 1, 14, and 32 as follows.

1. (Currently Amended) A method, comprising:

transmitting a boot server discovery request onto a network;

receiving an acknowledgement in response to the boot server discovery request, the acknowledgement indicating a size of a block of data having a boot agent and a boot image to be transmitted to a processing system;

pre-posting a buffer in system memory having a size based on the size of the block of data indicated in the acknowledgement, wherein the boot agent and the boot image are buffered in the buffer upon receipt at the processing system;

receiving a plurality of data packets by a processing system via a network during a pre-boot runtime of the processing system, each of the plurality of data packets containing one of a corresponding plurality of data segments of a boot agent and a boot image, wherein the boot agent and the boot image are received at the processing system together as the block of data;

parsing the plurality of data packets using a network protocol stack to receive the boot agent and the boot image during the pre-boot runtime, a portion of the network protocol stack executed in a hardware entity of the processing system using one or more network protocol offload engines during the pre-boot runtime;

transferring the boot agent and the boot image into system memory of the processing system during the pre-boot runtime;

executing the boot agent;

branching into the boot image from the boot agent to initialize an operating system embedded within the boot image; and

executing the operating system.

2. (Previously Presented) The method of claim 1 wherein transferring the boot agent and the boot image into the system memory further comprises transferring the boot

agent and the boot image directly into the system memory via a remote direct memory access protocol ("RDMA").

3. (Original) The method of claim 1 wherein the portion of the network protocol stack executed in the hardware entity includes a transmission control protocol over Internet protocol ("TCP/IP").

4. (Original) The method of claim 3 wherein the TCP/IP is implemented in the hardware entity using a TCP/IP Offload Engine ("TOE").

5. (Original) The method of claim 3 wherein the portion of the network protocol stack executed in the hardware entity further includes a user datagram protocol over Internet protocol ("UDP/IP").

6. (Original) The method of claim 1, further comprising:

pre-posting a buffer in the system memory of the processing system prior to receiving a first one of the plurality of data segments, the buffer having a size corresponding to a data block, the plurality of data segments comprising segments of the data block, and

wherein transferring the plurality of data segments into the system memory includes transferring the plurality of data segments into the buffer in the system memory.

7. (Previously Presented) The method of claim 6 wherein the boot agent contains instructions for the processing system to execute to determine what to do with the boot image.

8. – 12. (Cancelled)

13. (Original) The method of claim 1 wherein the hardware entity comprises a network interface card.

14. (Currently Amended) A machine-accessible medium that provides instructions that, if executed by a machine, will cause the machine to perform operations comprising:

transmitting a boot server discovery request onto a network;

receiving an acknowledgement in response to the boot server discovery request, the acknowledgement indicating a size of a block of data having a boot agent and a boot image to be transmitted to a processing system;

pre-posting a buffer in system memory having a size based on the size of the block of data indicated in the acknowledgement, wherein the boot agent and the boot image are buffered in the buffer upon receipt at the processing system;

receiving a plurality of data packets by a processing system via a network, each of the plurality of data packets containing one of a corresponding plurality of data segments of a boot agent and a boot image, wherein the boot agent and the boot image are received at the processing system together as the block of data;

parsing the plurality of data packets using a network protocol stack to receive the boot agent and the boot image during a pre-boot runtime of the processing system, wherein a portion of the network protocol stack is executed in a hardware entity of the processing system using one or more network protocol offload engines during the pre-boot runtime;

transferring the plurality of data segments into system memory of the processing system during the pre-boot runtime;

executing the boot agent;

copying the boot image onto a data storage unit ("DSU") of the processing system;

resetting the processing system; and

booting the processing system from the boot image copied to the DSU.

15. (Original) The machine-accessible medium of claim 14, further providing instructions that, if executed by the machine, will cause the machine to perform the operations wherein transferring the plurality of data segments into the system memory

further comprises transferring the plurality of data segments directly into the system memory via a remote direct memory access protocol ("RDMA").

16. (Original) The machine-accessible medium of claim 14, further providing instructions that, if executed by the machine, will cause the machine to perform the operations wherein the portion of the network protocol stack executed in the hardware entity includes a transmission control protocol over Internet protocol ("TCP/IP").

17. (Original) The machine-accessible medium of claim 16, further providing instructions that, if executed by the machine, will cause the machine to perform the operations wherein the TCP/IP is implemented in the hardware entity using a TCP/IP Offload Engine ("TOE").

18. (Original) The machine-accessible medium of claim 16, further providing instructions that, if executed by the machine, will cause the machine to perform the operations wherein the portion of the network protocol stack executed in the hardware entity further includes a user datagram protocol over Internet protocol ("UDP/IP").

19. (Original) The machine-accessible medium of claim 14, further providing instructions that, if executed by the machine, will cause the machine to perform further operations, comprising:

pre-posting a buffer in the system memory of the processing system prior to receiving a first one of the plurality of data segments, the buffer having a size corresponding to a data block, the plurality of data segments comprising segments of the data block, and

wherein transferring the plurality of data segments into the system memory includes transferring the plurality of data segments into the buffer in the system memory.

20. (Previously Presented) The machine-accessible medium of claim 19, wherein-the boot agent contains instructions for the processing system to execute to determine what to do with the boot image.

21. – 29. (Cancelled)

30. (Previously Presented) The machine-accessible medium of claim 14, wherein copying the boot image onto the DSU of the processing system includes copying over a previous boot image currently stored on the DSU with the boot image to repurpose the processing system.

31. (Previously Presented) The machine-accessible medium of claim 14, wherein copying the boot image onto DSU of the processing system includes copying the boot image onto the DSU having no previous boot image to provision the processing system with the boot image.

32. (Currently Amended) A method, comprising:

transmitting a boot server discovery request onto a network;

receiving an acknowledgement in response to the boot server discovery request, the acknowledgement indicating a size of a block of data having a boot agent and a boot image to be transmitted to a processing system;

pre-posting a buffer in system memory having a size based on the size of the block of data indicated in the acknowledgement, wherein the boot agent and the boot image are buffered in the buffer upon receipt at the processing system;

receiving a boot agent and a boot image at a processing system via a network during a pre-boot runtime of the processing system within a plurality of data packets, wherein the boot agent and the boot image are received at the processing system together as the block of data;

parsing the plurality of data packets using a network protocol stack to receive the boot agent and the boot image during the pre-boot runtime, wherein a portion of the network protocol stack is executed in a hardware entity of the processing system during the pre-boot runtime using one or more network protocol offload engines;

executing the boot agent;

copying the boot image onto a data storage unit ("DSU") of the processing system; and

booting the processing system from the boot image copied to the DSU.

33. (Previously Presented) The method of claim 32, further comprising transferring the plurality of data segments directly into the system memory via a remote direct memory access protocol ("RDMA") implemented with one of the network protocol offload engines.

34. (Previously Presented) The method of claim 32, wherein the portion of the network protocol stack executed in the hardware entity includes a transmission control protocol over Internet protocol ("TCP/IP").

35. (Previously Presented) The method of claim 34, wherein the TCP/IP is implemented in the hardware entity using a TCP/IP Offload Engine ("TOE").

36. (Previously Presented) The method of claim 32, wherein the portion of the network protocol stack executed in the hardware entity includes a user datagram protocol over Internet protocol ("UDP/IP").

37. (Canceled).

38. (Canceled).